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ABSTRACT

BEHAVIORS OFTEN REGARDED AS DISEASES ARE IN FACT, NORMAL EVENTS. GROWTH, BOTH PHYSICAL AND MENTAL IS DISCUSSED, INCLUDING A LIST OF LEARNING MODES RANGING FROM ONTOGENIC TO VERBAL TRANSACTION. AUTISTIC CHILDREN ARE CONSIDERED. CAUSES, EFFECTS AND CHARACTERISTICS SUCH AS: (1) IRREGULARITIES IN SLEEP, (2) IRREGULARITIES IN THE ENVIRONMENT, (3) RIGIDITY AND INCONSISTENCY IN THE KINETIC SYSTEMS, AND (4) RIGIDITY, INCONSISTENCY, AND IRRELEVANCE IN THE VERBAL SYSTEM; ARE DISCUSSED. HEALTH DEVELOPS MOST SPLENDIDLY IN PEOPLE WHO ARE FREE TO EXPERIENCE A WIDE RANGE OF MEANINGFUL EVENTS. MEANINGFUL EXPERIENCE WILL BE INTENSIFIED IN PEOPLE WHOSE BIOLOGICAL NATURE IS FREE TO INTERACT IN PURPOSIVE WAYS, WHO ARE NOT ALIENATED FROM ANY PART OF THEIR HISTORY, METABOLISM, AND IDEATION, NOR SUPERSTITIOUSLY FROM ANY PART OF THE EXPERIENTIAL FIELD. THIS THEORY OF PERSONALITY SUGGESTS THAT THE MOST EFFICIENT MEANS OF MAXIMIZING OR REHABILITATING HUMAN BEINGS IS TO ENRICH THE ENVIRONMENT OF CHOICES, WHILE ENABLING (FORCING) THE PERSON TO PERCEIVE AND COPE WITH THOSE CHOICES. (KJ)

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A FIELD THEORY OF PERSONALITY

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SOME BARELY RELEVANT COMMENTS ON
THE IMPORTANCE OF
THEORY TO PRACTICE AND ETHICS

Many behaviors of people that get called "conditions" are really normal phenomena. The helping professions prefer complicated explanations to simple ones. Americans are both optimistic and perfectionist. They like to believe that everyone can really be a genius. They tend to be anxious if if things don't measure up to optimistic ideals. Americans also enjoy a Puritan willingness to explain things they don't like as a diabolical invasion - though disease has replaced demonology. Parlor psychoanalysis is the great American sport. Probably no other people are as ready to describe their political enemies as "sick" rather than wrong or wicked.

The helping professions also suffer from bad morale. The products of their best research tell them again and again that nothing they are doing is really worth doing. Yet they feel very strongly that "something must be done". New ideas, fads, fashions, foolishnesses rush to popularity and remain stuck in the practice of people who ought to know better. People who wouldn't dream of hiring a dowser or even a chiropractor practice psychoanalysis or "programming". Americans are willing to pay for cosmetics instead of medicine.

The average cost of custodial mental hospital incarceration is more than \$9,000 per patient per year. A typical psychoanalysis costs \$75,000 or

more. An average clinical psychologist might treat as many as 1,200 clients in a 30 year career - assuming that each client required only one hour each week for just a year. The average cost of state supported psychiatric residential care for adolescents is \$26,000 per patient per year. The average rate of cure of schizophrenia is 50% whether or not the patient receives "treatment". People on waiting lists for clinics are cured as fast as those being "treated". The literature demonstrates that the wealthier the patient the longer his "treatment".

Is it any wonder therapists suffer poor morale? Is it any wonder more of them kill themselves than other professions? It must be difficult to maintain an image of healer when one delivers less real service than a Beverly Hills mortician. Particularly when one charges enormously more for one's nonservice.

Typical public special education programs for disturbed pupils cost \$6,000 per day pupil per year. Typically they discharge 10 of 300 children back to regular classes at the end of a year. Typically the lucky 300 are less than 10% of those nominated for the service by teachers and counselors.

Even if such programs worked (and there is absolutely no evidence that they do) it is ridiculous to think of them as solutions for public needs. If 10% of school children need special education the "condition" approach, or

the "medical" model, would require for special day school education at least \$24,000,000,000 for annual operating expenses. If we include all those children who cannot read or calculate satisfactorily (80% of slum children, 20% of suburban children) then we will need a minimum of \$150,000,000,000 each year at 1960-1965 educational cost levels. We would be able to expect only 10% success.

Unfortunately neither principle of parsimony is taught in Education College.

Of course, this might simply be an unfortunate reality. If we suddenly were afflicted with bubonic plague we would have to pay or the people would die. My point is that the reality reported by the educational establishment is a product of superstition and has nothing to do with the needs of living, breathing human children.

This may seem an unsavory, and unnecessarily combative way to begin a paper on a theory of personality. I have chosen this lugubrious introduction as a means of underlying the fact that theory has enormously practical effect. The disease theory of maladaptive behavior is incredibly wasteful. Not only is it wasteful, but because the "treatments" demanded by the medical model exacerbate the true causes of inefficient behavior, the money wasted on medical model "treatments" is spent to increase human misery and incompetence.

If one seriously doubts this thesis one need only visit any state mental hospital or juvenile detention center - and contemplate the fact that these monstrosities do not exist in most of the world. Talk to any failing kid about school. Or contemplate the fact that for at least 40 years research has shown that dropouts commit more crimes before they drop out of school than after, and that more juvenile crimes are committed on school nights than on weekends.

I began by saying that many behaviors called "conditions" are really normal behaviors. Unfortunately we seem to forget that norms are statistical fictions. Any norm is a product of a regular distribution and the vast majority of individuals are not at the norm. Most American men are not the average height of 5' 10". Most of the money we spend in "helping" individuals is spent about as wisely as if we tried to normalize the height of individuals.

If the average IQ of Americans is 100 then is it quite clear that 50% of Americans will be at IQ 100 or below, while 50% will be at IQ 100 or above. Cute little word games about the "real" IQ notwithstanding, real abilities do occur in statistical groupings and except for very gross abilities (say, the ability to stand up) are normally distributed in a Gaussian or bell shaped curve. Half of any such population is below average. It is very clear that, whatever IQ tests measure, intelligence is normally distributed. It would be surprising if they were not.

The regrettable effect of labelling a normal behavior as "retarded", "hyperactive", "adjustment reaction", "character disorder", or any of the other names dear to clinicians and their ilk is that the actual behavior is obscured. Moreover, those few individuals who may in fact suffer from an invasion or status defect tend not to be given the searching examination that might properly diagnose their condition. We almost never see a "medical" history with any medicine but the most superficial sort in it. We do see an enormous amount of labelling in medical style without objective referent. This is regrettable for we have demonstrated that many inabilities are based on diseases or dysfunctions or parasites and can be cured directly.

SOME RELIABLE FACTS ABOUT BEHAVIOR AND LEARNING

We now know that psychoanalytic assumptions are myths. They may be poetically useful, but they certainly are not subject to scientific verification, and in large part are demonstrably false. The idea of the birth trauma, for example, is absolutely refuted by thousands of well documented cases of infants born breathing, relaxed, asleep, with Russia today. It is certainly a frequent experience in any hospital encouraging natural child birth in which parturition is regarded as a state of marvelous health rather than as a sickness.

In any case, Freudian concepts have never proven useful for the kinds of problems schoolmen face, nor for the essentially phobic material

that young children usually surface as their early compulsions, etc., are notoriously immune to psychoanalysis and other dynamic therapies.

We do know that the infant at birth is a complex individual. He has already accomplished a great deal of learning. The orienting reflex is well established and from the very first the infant is progressively attracted to the more complex and novel events around him.

There is certainly no drive to avoid stimulation in higher animals. The motive of growth and power is at least as important as the motive of equilibrium in the homeostasis of all organisms. The infant learns through hunting, approximating, ranging behavior. This hunting is refined toward controls through complicating experiences that are actively sought out by the infant. Boredom, lack of change and stimulation causes death in many infants and increases arousal in all organisms.

The brain is no mere switchboard. The brain is a colloid analogue computer. Analogue functions are particularly important at birth, and are integrated with information systems that include endocrine secretions, kinetic attitude, set, orientation and dynamics and the global attitude, set, orientation and transactions in the environment. The information system is not limited to the off/on, binary information system of the central nervous system. Nor are computations limited to the discrete physical boundaries of the brain or nervous system.

Memory is not encoded in the brain alone, but is a complex dynamic of gestalt processes involving the entire organism. The devious communication methods of a patient in whom the hemispheres of the brain have been separated gives an elegant demonstration of these devices. If a colored card is displayed to the eye controlled by the nonverbal hemisphere the patient cannot (unless he happens to make a lucky guess) tell the color though he can point to the correct color on a chart. If pushed to tell the color he will say various colors. He knows when he hears the wrong color by means of shrugs, gestures and various movements. When he hits on the right color the body makes an obviously affirmative movement and with some excitement the patient then says the right color with great surety.

None of these signalling systems are fully developed at birth. The individual must learn equilibrium and regulation - initially through spinal reflex conditioning. Infantile experiences with temperature change, ambient noise and light, tactile experiences, and so on, will modify the ability of the adult to regulate his internal environment in response to external change. In fact the actual physical structure, size, and complexity of many neural nets and cells will be modified by the information transfers and learning that occur after birth.

The infant probably does not differentiate signalling coming from the external world from internally generated signals. In some processes

adults do not. Experiments in latency of classical conditioning demonstrate that adults do not differentiate between internal/external signals in non-cognitive processes. These preverbal signalling systems are efficient in habituation, extinction, autokinesis, schizokinesis and other internal regulatory processes. Kinetic analogues are the first important signals.

Strategies are demonstrated by nonverbal animals. Strategies seem to be the earliest cognitive function. They do not seem to be manipulable by any modes of learning we now understand. Strategies clearly do not depend on the later cognitive functions and are probably independent of later functions. Distinctive strategic styles are clearly utilized by very young infants.

Infants display epistemic behavior. They make specific exploration and diversive, hunting explorations. Specific exploration is possibly a drive to reduce the aversive value of uncertainty. Ambiguity drives arousal and is generally aversive to all higher organisms. Diverse explorations (play) appears when arousal level are low. That is, when hunger and other primary needs are satisfied the epistemic drive emerges and appears to be the most powerful and insatiable need of complex organisms.

Epistemic behavior appears more complexly and completely in higher animals. However, single ganglia of lower animals can be shown to display learning. It is very likely that epistemic behavior is more "primitive" than has been thought. The complexity of lower animal behavior has been poorly

observed, particularly since the devastating love affair of behaviorists with the Norwegian rat began.

The hierarchy of learning modes would approximately range in the following order:

1. ontogenic (cell growth, differentiation, etc.);
2. vegetative (endocrine and unconditional autonomic, etc.)
3. spinal reflex conditioning (sympathetic inhibition);
4. perceptual (kinetic and external through sense organs);
5. kinetic motor reactions (instrumental conditioning)
(reactive inhibition);
6. motor/perceptual gestalt (cortical inhibition);
7. verbal perceptual (spinal reflex);
8. verbal inhibition (verbal initiation of kinetic events;
internal initiation of verbal events; verbal/motor gestalt)
(cortical inhibition);
9. verbal transactional, verbal cognitive (cortical inhibition);

It is likely that epistemic elements can be demonstrated in all these modes of learning, even the quite primitive. It is clear that learning is an information system, that is, that transactions, exchanges of energies are always implied from the very earliest stages. It is also clear that from gamete to adult the organism actively impinges upon the environment; that is that excitation originating in the organism produces information to which the organism responds with further and modified excitation.

Early verbal learning is probably spinal reflex learning; however, quickly the behavior becomes richly interconnected. The child first recognizes verbal label, he then can perform to verbal commands (verbal inhibition), and then he initiates verbal identifications and commands of his own. The reproduction of words and organization of speech is certainly individual in each child. Children develop their own linguistic system, simpler than an adult system, but a complete and unique system. The child's language systematically, and in its own characteristic fashion approximates adult languages. Adult language systems still retain their own unique and highly idiosyncratic features. The child creates his language - it is not imposed on him.

The development of verbal signals is superimposed on the earlier analogue systems and to some extent replaces them. The first functions of speech are directly analogue in structure. Much verbal learning is also accomplished through more simple modes - reading, for instance, most efficiently learned by a combination of spinal reflex, instrumental conditioning and motor gestalt activity. Reading is probably not in and of itself a cognitive function at all (no more than is hearing).

Verbal signalling is very strong and richly permeates the cortex. Once a behavior has been set into action by a verbal command it is very difficult to stop it. At some ages it is impossible to stop or switch a behavior

once initiated by a verbal command. Further commands to stop or change simply intensify the initial behavior. In mature individuals commands not to do something often have a reverse effect. Both "no" and "don't" appear in the language of all children in all cultures before "yes" and "do". There are some stages in which "no" play predominates. These stages are just at the point in which the smooth interaction between the verbal and kinetic signalling systems is being established. This is also the point at which verbal inhibition has its greatest inertia. Cognitive dissonance, "no" responding, remain important responses in mature individuals, and in some individuals the inertia of verbal inhibition is controlling.

If deprivation or other arousal driving events are experienced during the "no" stages it is quite likely that the "no" analogue becomes fixed. Single trial traumatic conditioning during this period can also fix the "no" response.

A characteristic social setting of crossed signals, constant yes/no, approach/avoidance, punishment/reward, expectation/deprivation will create a characteristic "no" response to strong signals as well. Such individuals would be very responsive to strong immediate management, but would tend to carry about extensive internal programming fixed for negating verbal coding. They would be resistant to conditioning, suggestion and new learning. For instance, the typical authoritarian is very effective in closely managed situations with little ambiguity, but

is chaotic and antisocial in situations where authority is absent and roles or information ambiguous.

This coding is not cognitive. The "no" stages are stages richly involving the kinetic analogue system and dyskinesia can thoroughly be established in the vegetative, kinetic or the environmental gestalt signalling systems as well. Intense continuous experience of discordant messages can establish a self reinforcing schizokinesis (on the model of Sidman avoidance conditioning, or actually creating a self-immune antibody mechanism, or allergy).

Healthy development integrates autonomic and motor responses, as well as verbal signalling at both the emotional and cognitive, problem solving levels. Lack of integration and economy of interaction (schizokinesis) in any of the processes and their transactions is a source of inefficiency.

Autistic children probably have an internally inconsistent vegetative system from birth - it would seem reasonable to assume that they may be born with richly interconnected systems in the cortex interfacing with autonomic, kinetic and motor gestalt functions since the interconnections cannot have been organized by experience, homeostasis or REM sleep. I know of no data regarding this but I would predict that Kanner's syndrome infants betray a deficit of REM time.

It is very likely that those children who eventually become strong cognitive verbal learners and well regulated individuals are born with similarly rich cortical networks (this is the gene background of Kanner's syndrome children), but in addition to this factor the autistic child probably experiences:

1. irregularities in sleep, thus preventing smooth signalling between the alerting and inhibiting systems;
2. irregularities in the environment - temperature, noise, etc., and irregularities in the internal mechanisms regulating same;
3. rigidity and inconsistency in the kinetic system;
(mothers report that autistic infants are stiff and unresponsive. It is probably impossible to determine who initiates this interaction, but it will clearly be a self breeding interaction. If the rigidity starts with the child the mother will clearly respond similarly causing a further discontinuity in the infant. Our culture is very bizarre in its treatment of infants in any case. We have found this symptom of autistic children easy to reduce, and work with horses - a very "autistic" animal - confirms that such kinetic coding is easy to break up!

4. rigidity, inconsistency and irrelevance in the verbal system.

Any of these conditions would cause primary needs to surface as immediately important. High arousal would occur in a very tightly organized system. The epistemic drive would not emerge. Regardless of environment the child would constantly exist in ambiguity, with high anxiety, fear, pain, internally inconsistent temperature and noise regulation, and insulin irregularities (sugar addiction is almost always present in autistic children, and high carbohydrate/sugar intake is a consistent behavior in disturbed children).

Recently learned behavior disappears under stress. Behavior regresses to earlier developmental phases under stress. The mode of emotional learning regresses under stress. Despite its power, verbal cognitive learning is the most vulnerable mode of learning. Spinal reflex conditioning in its simplicity is the most durable mode.

The verbal system then is powerful, but unreliable, and not strongly developed as a reinforcing behavior. This is much more true in an organism constantly under stress.

In autistic children a highly idiosyncratic verbal system develops, it is not subject to the smoothing interactions that approximates normal signalling systems toward norms and self regulation. Moreover, the

verbal system in autistic children is very inconsistently linked to the motor system. In this extreme disorder we see an irregular and unreliable signalling system at the perceptual, autonomic, motor and epistemic levels and in their interactions. The system is characterized by positive feedback - weak signals are amplified without modulation and control. The system is self reinforcing through avoidance conditioning, especially by an internal self aversive stimulus system. This means the interactions are extremely inconsistent and rigid.

The example of early infantile autism demonstrates how a cascading sequence of discontinuities reverberates through the entire network of information systems creating an almost entirely inefficient individual. This schema demonstrates that there is no need to postulate a disease or invasion to explain the cluster of behaviors. This is further supported by the fact that a substantial number of spontaneous "cures" are reported, with formerly nonverbal individuals displaying full verbal behavior in a few days. Our own experience with autistic children underlines the fact that the syndrome is a function of discordant signalling systems generating positive feedback. We find them relatively easy to regulate.

This schema can explain why almost no population (social, genetic, birth order, race, problem, etc.) fails to produce exceptionally at either end of the curve. The mature human biological system is a statistical universe in and of itself. The mature human being enjoys a multiplicity of

richly interconnected information systems so that much of the behavior of individuals will approximate normal distributions. The normal vicissitudes and accidents of living will frequently cause dyskinesia which may reverberate enough to unbalance the system into schizokinesis. Brief therapy, brief separations, maturation, vacations, sleep therapy, supportive regimens, radical environmental change, separation of family members all probably operate on a principle no more complicated than that by which a loudspeaker stops ringing when the volume is turned down so that the self breeding positive feedback is stopped. Autokinesis, or self regulation is a powerful force in all biologically intact organisms.

By this schema we can predict that troubled persons normally will be characterized by:

1. poor regulation of vegetative functions;
2. poor balance, and kinetic abilities;
3. high arousal, often masked by boredom (which itself is a response to an arousal driving situation) and by rigidity;
4. very active autonomic responses with inappropriate motor signalling (ie, looking calm while their hearts are racing, etc.);
5. irregular cyclic interactions, especially sleep;
6. high ambiguity and generalization in perception and

and reporting (the tendency of schizophrenics to lose their ability to think abstractly is not inconsistent with this prediction, which refers to perceptual and precognitive responses - when an autistic child looks at you and says "I see meat" or "washing machine", the response is not simply bizarre, it is generalized and ambiguous even though the word is a concrete word;

7. disturbance of the orienting reflex, and of habituation;
8. reduction of exploratory behavior, particularly of diversive exploratory behavior - play;
9. tendency to choose previously experienced behaviors and objects;
10. persistence of infantile strategies;
11. resistance to verbal commands and suggestions (slavish obedience can be a tactic of resistance);
12. perceptual distortion;
13. increased awareness and importance of internal functions;
14. resistance to conditioning, primarily through rapid loss of conditioning;
15. idiosyncracies, desynchronized rhythms, inconsistent motives and data processing;

We can predict that a distorted system can be broken up through any of its modes;

that the more distorted the system the more modes that will have to be regularized at once;

that relearning in any part of the system will positively effect the entire organism;

that relearning will most ineffectively be accomplished through cognitive tactics (recognizing that reading is not seen as cognitive learning);

that verbal relearning attempted through command, discernible suggestion or perceived manipulation will be ineffective, and will likely reinforce the schizokinesis;

that extreme dyskinesis must be approached through the more primitive modes of learning;

that regularization of the primitive systems will improve motor gestalt learning and cognitive verbal learning;

that abilities of many individuals will be regulated through autokinesis that can be induced or assisted by radical change in the environment, removal of demands on the system, rest and recreation or simply leaving the person alone (it should be noted that the internal stresses of some individuals make it impossible to "leave them alone").

Imbalance in any system will effect the synchrony of any other

system with which it is in communication. However, in very strong individuals any one system may be badly distorted and the others functioning smoothly, dampening the discordance from the disorder. It is quite likely that if the more primitive systems are functioning minimally a hierarchy of power operates in a direction opposite to the hierarchy of stability. It is easier to induce a person to kill himself by words than by prolonged pain. A monkey will work longer for the reward of looking out a window at human beings than for food. Purely verbal stimuli (as in hypnosis) can prevent all observable reactions to pain - even in major surgery and torture. A regularized and highly integrated motor or verbal cortex exerts a regularizing and smoothing effect on the perceptual and vegetative systems.

Verbal behavior can serve as an analogue to nearly every other process and can condition those processes, even on vegetative and ontogenic levels. Verbal stimuli can elicit much stronger responses than other stimuli. Responses to one's own voice, even when not consciously recognized, are stronger than responses to the voices of others. Dogs react with much greater response to the mere sight or sound of the experimenter than to electric shock or food. Symbolic, verbal or representational stimuli may have a greater effect than direct stimuli. In some instances a unique effect may be generated symbolically that simply is not reproducible in direct experience.

The enormous power of the verbal system is that it can replace the

analogue events in other systems almost completely. Verbal behavior can become almost completely self reinforcing and can serve as an unconditional stimulus as well as reinforcement. The verbal system thoroughly permeates the cortex and is in rich interconnection with the entire complex of information systems.

Positive feedback

Asthenic, High frequency Oscillation, Reverting Responses, High Arousal

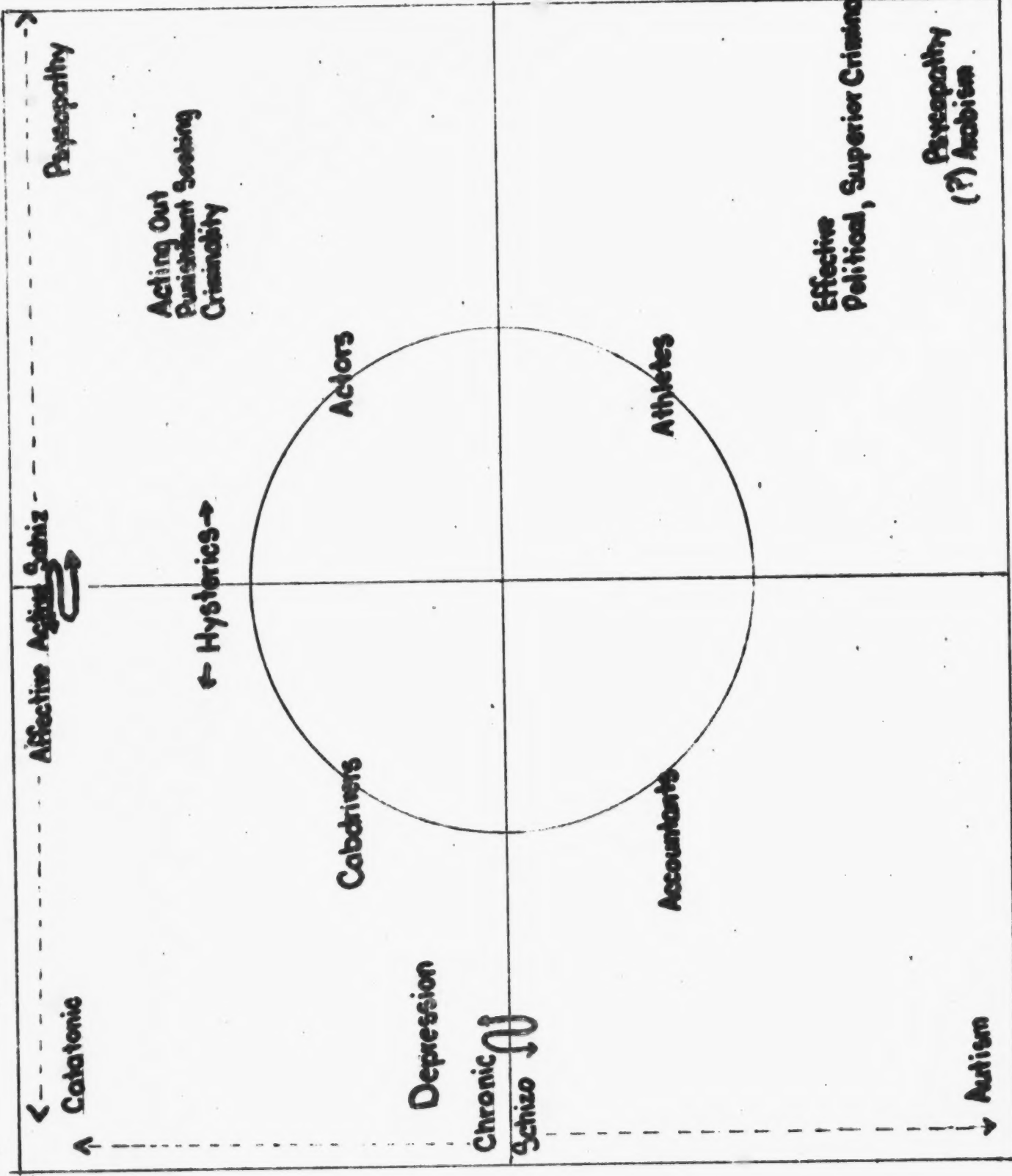
High Reactive Inhibition, (?) Remsleep

Type R Conditioning
Predominates

Type S Conditioning
Predominates

Internal
Auditory
Digital Verbal
Indexing
Synergy
Trunk
Visceral

External
Visual
Analogue verbal
Space exploratory scan
Affectors
Limbs
Motor



Motor gestalt learning predominates

Cortical Learning Predominates

Negative Feedback

Asthenic, Low frequency Oscillation, Damped Responses
High Cortical Inhibition
(?) Stage II Sleep

A FIELD THEORY OF PERSONALITY

It might prove convenient to think of characteristic individual behavior as a cyclical oscillation in a field. The field is characterized by two dimensions. These dimensions are displayed in polar fashion, and to some extent the characteristics in the polar dimensions are antagonistic.

It seems possible that other factors - experience, vitality, intelligence, accident, disease, dysfunction - react and are shaped by the more fundamental processes which characterize the field.

The North-South dimension is feedback.

The North polar position is one of high positive feedback. This is characterized by high amplitude of gross or internal responses, reverberating, high frequency, arhythmic responses. When dysfunctional this system is overenergized toward large oscillations and lack of control. This pole is characterized by high reactive inhibition, and probably by a preponderance of REM sleep over Stage IV or Delta Wave sleep. When speaking of high amplitude we are not describing the characteristic brain wave activity or sleeping activity, but the global activity of the individual.

The South polar position is characterized by high negative feedback. It is one of dampened, rhythmic responses and low frequency oscillations. When dysfunctional this dimension is overenergized toward dampening

field theory ii

and control. Stage IV sleep probably overbalances REM sleep.

The characteristic brain wave activity at these poles is high amplitude/low frequency/rhythmic waves at the South pole and low amplitude/high frequency/disrhythmic waves at the North.

The East-West dimension is a function of kinetic vs autonomic reactivity. The chief characteristics refer to the essential direction of reactivity and it seems that other characteristics cluster with these poles.

The West dimension is one of internal, trunk and visceral responses emphasizing synergy. It seems that such personalities emphasize data received auditorily, they tend to store data by indexing, and are predominately digital in their verbal cognitive style. They tend to be sedentary.

The East polar characteristic is one of external, motor and affective limb reactions, in personalities that seem to emphasize visually collected data, remembered by sparse exploratory scanning. Their primary cognitive style seems to be analogue or point gestalt integration. They tend to be active.

This psychokinetic field can be schematized into four quadrants with normal, fully functioning, healthy individuals characteristically appearing in any of the four. The possibility of dysfunction, dyskinesia and schizokinesis is increased with distance from the intersection of the

field theory iii

dimensions in a pearshaped distribution. It is more efficient to be displaced toward the base, South, negative feedback pole.

Some conditions will be characterized by position in the field; ie, accountants characteristically would be located in the SW quadrant, athletes in the SE quadrant, actors in the NE quadrant and cabdrivers and case lawyers in the NW quadrant. Psychopaths will be found in the Eastern hemisphere, depressed and autistic persons will be found in the Western. Characteristically these conditions will be found to be functions of the dynamics which organize the field - other factors being constant.

Invading factors will be modified by the basic dynamics of the field. Intoxication will vary by the dynamic location of the person in the field. Increased arousal, or specific arousal driving states - hunger, fear, pain, rage, boredom, overload, sex - will characteristically differ according to the dynamic displacement of the person in the field.

Individuals are not statically located in the field but describe a complex figure in several cycles. Personal ontogeny moves from NE to SW, while the diurnal cycle oscillates through a counterclockwise motion from SW to NE. Natural sleep ordinarily oscillates through the dimensions in roughly 90 minute cycles. It is quite likely that the daily cycle is at least reminiscent of this pattern, even if the individual does not clearly move into all four quadrants.

field theory iv

Disorders can be seen in four categories:

1. extreme displacement in the field - status disorders; autism, catatonia, psychotic depression;
2. excessive oscillation in the field - step-function-change disorders: schizophrenias, hysterias;
3. external impingement modified by the field dynamics - intoxication, accident, disease, dysfunction;
4. normal dynamics as expressed in the characteristics of the field: ie, dumb NE personalities will be different from dumb NW personalities, and probably not as effective as dumb individuals whose behavior places them in the lower range of the pearshaped distribution of efficient functioning. Similar differences will be seen in people with below average acuity, resolution, coordination, and other abilities. A socially inept NE individual will probably be a more effective social person than a socially inept SW individual.

It is quite likely that the relative position of each individual can be located with great precision in the field:

- A. characteristic autonomic responses - skin or viscera?
- B. characteristic balancing actions - trunk or limb?
- C. characteristic autonomic functioning - high histimic

field theory v

reactivity or low, pulse, blood pressure, GSR, pupil reflex, other measures of arousal;

- D. characteristic sleep patterns;
- E. reactive inhibition/cortical inhibition;
- F. verbal cognitive styles; memory strategies;
- G. vividness for conditioning of auditory or visual cues;
- H. conditioning curves, and relative efficiency of type of conditioning.

This field theory makes a number of predictions and postulates a number of issues that are readily subjected to operational verification:

1. are arousal and reactive inhibition positively related?
2. are arousal and cortical inhibition negatively related?
3. does characteristic high arousal yield more REM time?
4. do visceral/internal and affector/motor types of reactions occur as characteristic responses of individuals?
5. can cognitive styles of verbal digital and verbal analogue computers be demonstrated? do they occur in dynamic antagonism when extreme?
6. are internal/visceral reactors generally verbal digital thinkers?
7. are affector/motor reactors generally verbal analogue thinkers?

8. do digital thinkers emphasize auditory data?
9. do analogue thinkers emphasize visual data?
10. Do NW personalities condition emotionally primarily through spinal reflex (type S) conditioning?
11. Do SW personalities condition emotionally through verbal/cortical learning?
12. Do NE personalities condition emotionally primarily through instrumental (type R) conditioning?
13. Do SE personalities condition emotionally primarily through motor/verbal gestalt learning?
14. Does cortical learning (motor, verbal and perceptual) and enrichment tend to stabilize autonomic functioning?
15. Can a brain's binary switch be demonstrated in schizophrenia explaining a step-function-change displacement in the field?
16. Can static conditions be demonstrated as dyskinesia? ie, are autism and arabism not schizophrenia but static conditions?
17. Do Kanner's syndrome children have a deficit of REM time, do they have rich cortical interconnections at birth?
18. Northern hemisphere personalities will tend to be shaped

and changed by close management and vivid punishment. True?

19. Southern hemisphere personalities will tend to be confirmed and reoriented toward punished behavior and by close management and incarceration.
20. Passive hostility, runaway and uncharacteristic impulsive acting out behavior will tend to be in NW (internal/positive feedback) persons - probably a majority of suicides as well.
21. Character disorders, chronic acting out and inferior. chronic petty criminality will be found in the NE (external/positive feedback) personalities.
22. Positive healthy suggestibility will be found in the center pearshape distribution.
23. Persons displaced to the NE will tend to react actively against suggestion, but will be manageable by direct vivid manipulation.
24. Persons displaced to the NW will tend to react against suggestion, or will be very over suggestible.
25. Persons displaced to the SW will tend to react against suggestion by rigid control.
26. Personalities displaced to the SE will tend to be over suggestible but will react with strong negativicity to close management.

A large number of other predictions and research issues will be produced by this field theory; however, this small sample should adequately demonstrate the fertility and objectivity of the hypothesis.

IMPLICATIONS FOR REEDUCATION

I began by pointing out that behaviors often regarded as diseases are in fact normal events. Since behavior is a product of a large number of interacting dynamic processes the distribution of nearly any ability or complex behavior will be Gaussian. Development of the matrix of active information systems requires maximum freedom and balanced feedback for efficiency. These developments will tend to be distributed normally unless strong outside events imping on the field of the system, without providing opportunity for modulation or feedback.

Efficient regulation of the semiautonomous, self regulating, mobile computing systems called people demands maximization of useful input in the form of intelligible signals, maximization of internal communication, and maximization of freedom for purposive action in the field of experience. In other words, healthy develops most splendidly in people who are free to experience a wide range of meaningful events. Meaningful experience will be intensified in people whose biological nature is free to interact in purposive ways, who are not alienated from any part of their history, metabolism, and ideation, nor superstitiously from any part of the experiential field.

field theory ix

This theory of personality suggest that the most efficient means of maximizing or rehabilitating human beings is to enrich the environment of choices, while enabling (forcing) the person to perceive and cope with those choices.

Reduction of static inhibitions, static systems of perception, superstitious behaviors and informations systems will enable a smoother interaction in the dynamics of the person. Enabling the organism more freely to initiate and assert its basic drive to growth, fundamentally by strengthening its biological, kinetic and motor/verbal abilities and range, and permitting autokinesis to function, will be the most efficient intervention.

Most people call a dynamically complex social happening "unstructured". They react as if a crystal were more complicated than a cell simply because its structure is easily seen. In any descriptive system it ought to be clear that social structures like the military hierarchy of authority are the simplest, least structured (and contain the least authority) and most static organizations. Pyramidal social structures using directive, rigid, verbal, cognitive, time bound systems of instruction or therapy will almost certainly increase the likelihood of dyskinesis. Social interventions which surround the individual with rigid boundaries, formalized irrational roles, large information discrepancies and steep energy cliffs will surely increase discordance in the internal dynamics. When one

field theory x

inspects schools, clinics and hospitals as they exist one marvels at the efficiency of the engineering for schizokinesis.

Schools attempt to take a visual, motor, active, analogue computing, sparse exploratory scanning, point gestalt integrating, semi-autonomous, self regulating entity and almost immediately demand of his behaviors suitable for a verbal/auditory, sedentary, digital computing, indexing, line integrating, ballistic, externally regulated entity. The abruptness of the change in environmental demands, and the totally inappropriate nature of the demands seem surely designed to disorganize the child. Attempts at remediation, as practiced almost universally, completely ignore the dynamic nature of the child or adult and intensify the characteristics of the institution primarily responsible for the damage. Almost no consideration is given to characteristic information or learning systems.

Human beings are marvelously strong, else we all would be disoriented by the ferocity of our society. Almost no functional liability does not frequently spontaneously disappear in some individuals. Social interventions which maximize the flow of information (meaningful interactions, transactions involving the exchange of available energy or useable data) will assist autokinesis.

Attention to the biological person - diet, medicine, kinetic tonus - enrichment of the existential field, and leaving the person alone within vividly communicated boundaries constitute the perscription for tuning the human system suggested by this field theory.

Luria has elegantly elucidated the idea of verbal inhibition or inertia: for example, at the age when motor and verbal activities are being integrated (about 30 months) a child cannot stop an action induced by verbal command once started, nor can the child switch the action. In this situation the initiated action actually is intensified by verbal commands to stop or change. This inertia can also be demonstrated in adults with great refinement.

If one can agree that the motor cortex has similar signals and inertia then the hierarchy of motor/verbal signals will make the concept of cortical inhibition clear:

1. excitation originated in the organism (ontogenic growth and development, S/R development, autonomic inhibition);
2. excitation in response to feedback from the environment (cell differentiation, S/R learning, autonomic inhibition);
3. hunting and play - epistemic behavior (waking exploration, random movements, REM, etc.);
4. refined, purposive modulated, integrated motor actions (instrumental conditioning);
5. perception and association of verbal signals (S/R);
6. auditory reminiscence and play, visual reminiscence and play (REM, etc.);
7. perception and verbally initiated motor action (motor cortex, motor/verbal gestalt);

8. verbal excitation originated in the individual, gesture and speech (verbal cortex and instrumental learning);
9. hunting and play (REM, etc.);
10. refined, purposive, modulated, integrated verbal/motor actions (S/R, instrumental, motor cortex, verbal cortex, verbal/motor gestalt);
11. cognitive learning, "purely" verbal activity.

Verbal inhibition is only one aspect of the total cortical activity involving the inertia of verbal/motor signals in the cortex. Cortical inhibition is balanced against reactive inhibition in that reactive signals are the mechanism by which arousal is driven (probably through the ascending reticular formation) and is characterized by high frequency, low amplitude, disrhythmic waves in the brain. These signals efficiently are responded to by attention focused through the signalling organs, alertness, and response of the organism in an appropriate motor action.

Under chronic load the arousal system inhibits the appearance of sustained high amplitude, low frequency, rhythmic waves - Alpha, Theta, Delta - and suppresses cortical inhibition. The organism may respond with stronger inhibitory waves (paradoxical bursts of spindles, or sleep waves; ie, conditional narcolepsy, subconvulsive neuroses, or epilepsy), but generally develops a chronic state of arousal with attendant inefficiency.

It ought to be rather simple to measure the dynamic strength of cortical inhibition:

1. nearly any verbal task - minimally useful, and a range of variables;
2. skill at complex motor tasks - somewhat better, particularly skill at motor tasks involving hemisphere switching and competing signals;
3. perseverance at motor tasks, particularly perseverence at boring motor tasks;
4. skill at verbal/motor tasks;
5. inefficient inhibition - degree of inefficiency induced by being given verbal instructions for a motor task (ie, Ames room experiment where group told nature of room has more difficulty touching wand electrode to button electrode on rear wall; multiplicity of experiments in which verbal instructions decay or totally inhibit performance at a motor task); amount of anti-suggestibility, reflex negativicity or jamming; amount of cognitive dissonance; conformity in Asch situations; anxiety responses to verbal cues;
6. efficient inhibition - ability to profit from verbal instruction for motor task; healthy suggestibility; hypotisability; lack of cognitive dissonance; increase of ability or perseverance

- under exhortation, power of verbal cues as unconditional stimuli or reinforcement; conscious ability to vary autonomic responses;
7. relative lack of resting hand tremor, probably increased hand steadiness under stress;
 8. resistance to habituation and extinction;
 9. slow conditioning curve with slow extinction;
 10. high tolerance for low stimulation, over stimulation, immobility and hyperactive situations;
 11. distressed individuals with high cortical inhibition, would probably have slow onset, overall fast reaction times, and tend to overreact to most stimuli in a stylized fashion that looks and sounds very phony;
 12. psychotic individuals with high cortical inhibition probably react with elaborate, gothic, behaviors - the schizophrenics who begin conversations or letters with very well formed concepts, sentence structure, ideation, writing and word production and then rapidly deteriorate into crazy productions probably have a brain binary switching kicking in the alerting system and flooding the brain with arousal signals and then suddenly switching back;
 13. probably high field independence.